

IBS IL 24 BK-T/U-PAC - Bus coupler



2861580

<https://www.phoenixcontact.com/us/products/2861580>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Inline, Bus coupler, INTERBUS, Inline shield connector, transmission speed in the local bus: 500 kbps, degree of protection: IP20, including Inline connectors and marking fields

Product description

The bus coupler connects an Inline station to the INTERBUS remote bus and provides the supply voltages for the connected devices.

Your advantages

- Remote bus connections using copper technology
- An Inline station can be supplied with all of the required 24 V voltages for low-level signals
- Automatic configuration of the outgoing interface as a remote bus or local bus interface
- Up to 15 connected terminals with remote bus branch supported
- Electrical isolation of the remote bus segments

Commercial data

| | |
|--------------------------------------|---------------------|
| Item number | 2861580 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | DR01 |
| Product key | DRI111 |
| Catalog page | Page 107 (C-6-2019) |
| GTIN | 4017918894436 |
| Weight per piece (including packing) | 264 g |
| Weight per piece (excluding packing) | 214 g |
| Customs tariff number | 85389099 |
| Country of origin | DE |

IBS IL 24 BK-T/U-PAC - Bus coupler

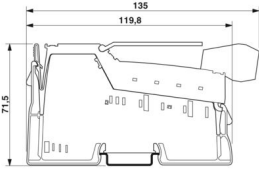
2861580

<https://www.phoenixcontact.com/us/products/2861580>



Technical data

Dimensions

| | | |
|---------------------|--|------------------------------------------------------------------------------------|
| Dimensional drawing | |  |
| Width | | 48.8 mm |
| Height | | 135 mm |
| Depth | | 71.5 mm |

Notes

| | | |
|-------------------------|--|---------------------------------------------------------------|
| Note on application | | |
| Note on application | | Only for industrial use |
| Utilization restriction | | |
| CCCex note | | Use in potentially explosive areas is not permitted in China. |

Interfaces

| | | |
|--------------------------------------|--|-------------------------|
| INTERBUS | | |
| Number of interfaces | | 2 |
| Connection method | | Inline shield connector |
| Transmission speed | | 500 kbps |
| Transmission physics | | Copper |
| Remote bus branch / Inline local bus | | |
| Number of interfaces | | 1 |
| Connection method | | Inline data jumper |
| Transmission speed | | 500 kbps |

System properties

| | | |
|-------------------------------------------------------------|--|---------|
| System limits | | |
| Number of supported devices | | max. 63 |
| Number of local bus devices that can be connected | | max. 63 |
| Number of devices with parameter channel | | max. 62 |
| Number of supported branch terminals with remote bus branch | | max. 15 |
| Module | | |
| ID code (dec.) | | 04 |
| ID code (hex) | | 04 |
| Length code (hex) | | 00 |

IBS IL 24 BK-T/U-PAC - Bus coupler



2861580

<https://www.phoenixcontact.com/us/products/2861580>

| | |
|----------------------|-------|
| Length code (dec) | 00 |
| Process data channel | 0 bit |
| Input address area | 0 bit |
| Output address area | 0 bit |
| Register length | 0 bit |

Product properties

| | |
|----------------------|------------------------------------------------------------|
| Product type | I/O component |
| Product family | Inline |
| Type | modular |
| Scope of delivery | including Inline connectors and marking fields |
| Diagnostics messages | I/O error yes, if the segment voltage U_S is not present |

Insulation characteristics

| | |
|----------------------|------------------------------|
| Overvoltage category | II (IEC 60664-1, EN 60664-1) |
| Pollution degree | 2 (IEC 60664-1, EN 60664-1) |

Electrical properties

| | |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Maximum power dissipation for nominal condition | 3 W |
| Protective circuit | Short-circuit protection of the communications power; electronic |
| | Short-circuit protection of the analog supply; electronic |
| | Surge protection (segment supply, main supply, bus coupler supply); Input protective diodes (can be destroyed by permanent overload)Pulse loads up to 1500 W are short circuited by the input protective diode. |
| | Protection against polarity reversal (segment supply/main supply); Parallel diodes for protection against polarity reversal; in the event of an error the high current flowing through the diodes causes the fuse connected upstream to blow. |
| | Protection against polarity reversal (bus coupler supply); Serial diode in the lead path of the power supply unit; in the event of an error only a low current flows. In the event of an error, no fuse trips within the external power supply unit. |

Potentials: Bus coupler supply U_{BK} ; Communications power U_L (7.5 V) and the analog supply U_{ANA} (24 V) are generated from the bus coupler supply.

| | |
|----------------------|--------------------------------------------------------------------|
| Supply voltage | 24 V DC (via Inline connector) |
| Supply voltage range | 19.2 V DC ... 30 V DC (including all tolerances, including ripple) |
| Current draw | max. 1.25 A (with max. number of connected I/O terminal blocks) |
| | typ. 100 mA (without connected I/O terminal blocks) |

Potentials: Communications power (U_L)

| | |
|----------------|----------|
| Supply voltage | 7.5 V DC |
|----------------|----------|

Potentials: Supply of analog modules (U_{ANA})

| | |
|----------------------|--------------------------------------------------------------------|
| Supply voltage | 24 V DC |
| Supply voltage range | 19.2 V DC ... 30 V DC (including all tolerances, including ripple) |

Potentials: Main circuit supply (U_M)

IBS IL 24 BK-T/U-PAC - Bus coupler



2861580

<https://www.phoenixcontact.com/us/products/2861580>

| | |
|----------------------|--------------------------------------------------------------------|
| Supply voltage | 24 V DC (via Inline connector) |
| Supply voltage range | 19.2 V DC ... 30 V DC (including all tolerances, including ripple) |

Potentials: Segment circuit supply (U_S)

| | |
|----------------------|--------------------------------------------------------------------|
| Supply voltage | 24 V DC (via Inline connector) |
| Supply voltage range | 19.2 V DC ... 30 V DC (including all tolerances, including ripple) |

Electrical isolation/isolation of the voltage ranges

| | |
|------------------------------------------------------------------------------------------------------------------------|------------------------|
| Test voltage: 5 V supply, incoming remote bus / 5 V supply outgoing remote bus | 500 V AC, 50 Hz, 1 min |
| Test voltage: 5 V supply incoming remote bus / 7.5 V communications power, 24 V analog supply, 24 V bus coupler supply | 500 V AC, 50 Hz, 1 min |
| Test voltage: 5 V supply, incoming remote bus / 24 V main supply, 24 V segment supply | 500 V AC, 50 Hz, 1 min |
| Test voltage: 5 V supply incoming remote bus / functional ground | 500 V AC, 50 Hz, 1 min |
| Test voltage: 5 V supply outgoing remote bus / I/O (U_M , U_S) | 500 V AC, 50 Hz, 1 min |
| Test voltage: 5 V supply outgoing remote bus / communications power (U_{BK} , U_L , U_{ANA}) | 500 V AC, 50 Hz, 1 min |
| Test voltage: 5 V supply outgoing remote bus / functional ground | 500 V AC, 50 Hz, 1 min |
| Test voltage: Communications power (U_{BK} , U_L , U_{ANA}) / functional ground | 500 V AC, 50 Hz, 1 min |
| Test voltage: Communications power (U_{BK} , U_L , U_{ANA}) / I/O (U_M , U_S) | 500 V AC, 50 Hz, 1 min |
| Test voltage: I/O (U_M , U_S) / functional ground | 500 V AC, 50 Hz, 1 min |

Connection data

Connection technology

| | |
|-----------------|------------------|
| Connection name | Inline connector |
|-----------------|------------------|

Conductor connection

| | |
|----------------------------------|----------------------------------------------|
| Connection method | Spring-cage connection |
| Conductor cross section rigid | 0.08 mm ² ... 1.5 mm ² |
| Conductor cross section flexible | 0.08 mm ² ... 1.5 mm ² |
| Conductor cross section AWG | 28 ... 16 |
| Stripping length | 8 mm |

Inline connector

| | |
|-----------------------------------|----------------------------------------------|
| Connection method | Spring-cage connection |
| Conductor cross section, rigid | 0.08 mm ² ... 1.5 mm ² |
| Conductor cross section, flexible | 0.08 mm ² ... 1.5 mm ² |
| Conductor cross section AWG | 28 ... 16 |
| Stripping length | 8 mm |

Environmental and real-life conditions

Ambient conditions

| | |
|---------------------------------|------------------|
| Ambient temperature (operation) | -25 °C ... 55 °C |
|---------------------------------|------------------|

IBS IL 24 BK-T/U-PAC - Bus coupler



2861580

<https://www.phoenixcontact.com/us/products/2861580>

| | |
|------------------------------------------|---------------------------------------------------|
| Degree of protection | IP20 |
| Air pressure (operation) | 70 kPa ... 106 kPa (up to 3000 m above sea level) |
| Air pressure (storage/transport) | 70 kPa ... 106 kPa (up to 3000 m above sea level) |
| Ambient temperature (storage/transport) | -25 °C ... 85 °C |
| Permissible humidity (operation) | 10 % ... 95 % (non-condensing) |
| Permissible humidity (storage/transport) | 10 % ... 95 % (non-condensing) |

Standards and regulations

| | |
|------------------|---------------------------------------|
| Protection class | III (IEC 61140, EN 61140, VDE 0140-1) |
|------------------|---------------------------------------|

Mounting

| | |
|---------------|-------------------|
| Mounting type | DIN rail mounting |
|---------------|-------------------|

IBS IL 24 BK-T/U-PAC - Bus coupler

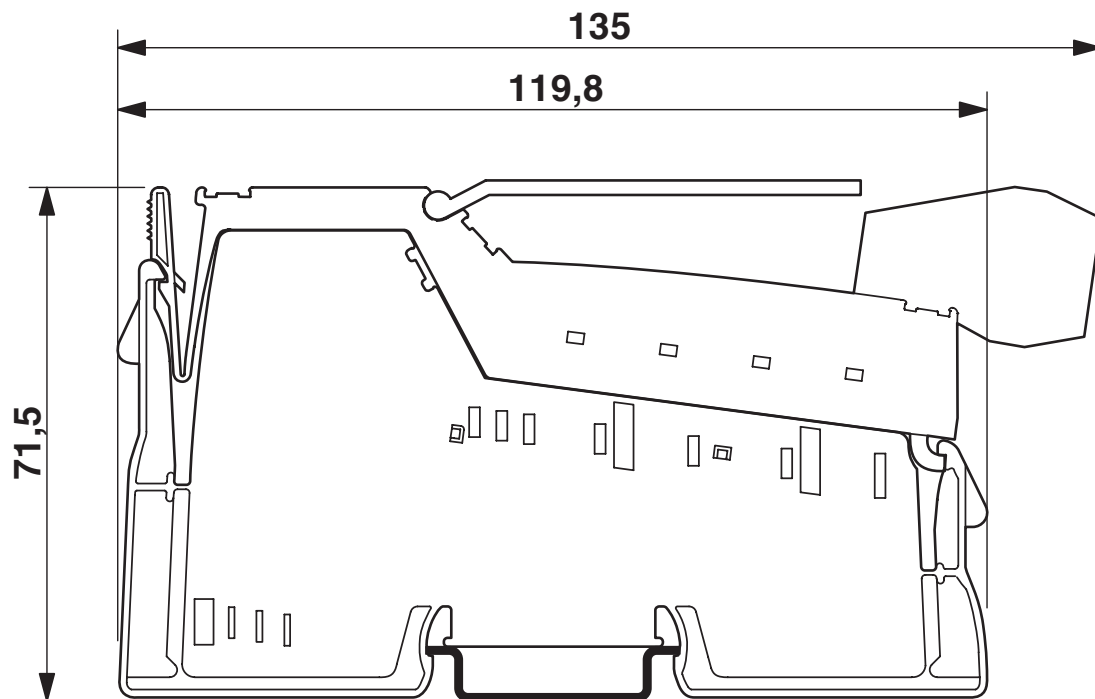
2861580

<https://www.phoenixcontact.com/us/products/2861580>

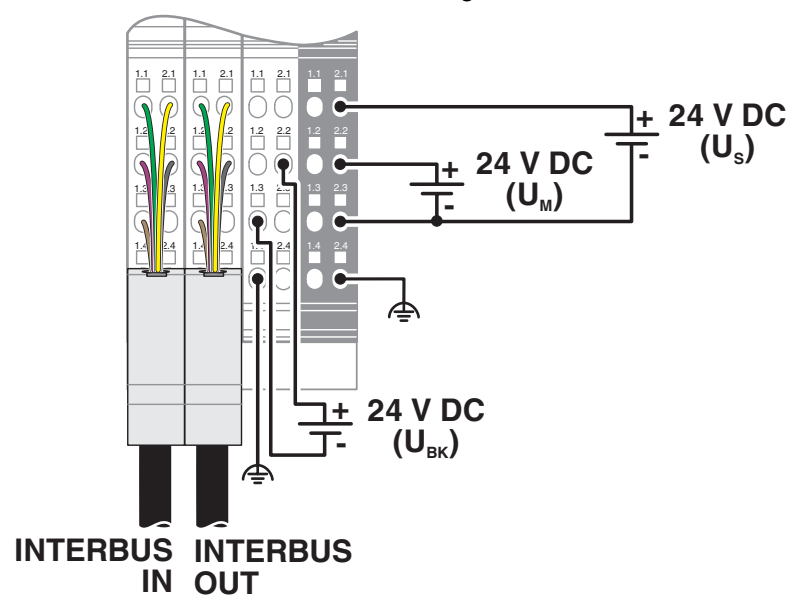


Drawings

Dimensional drawing



Connection diagram



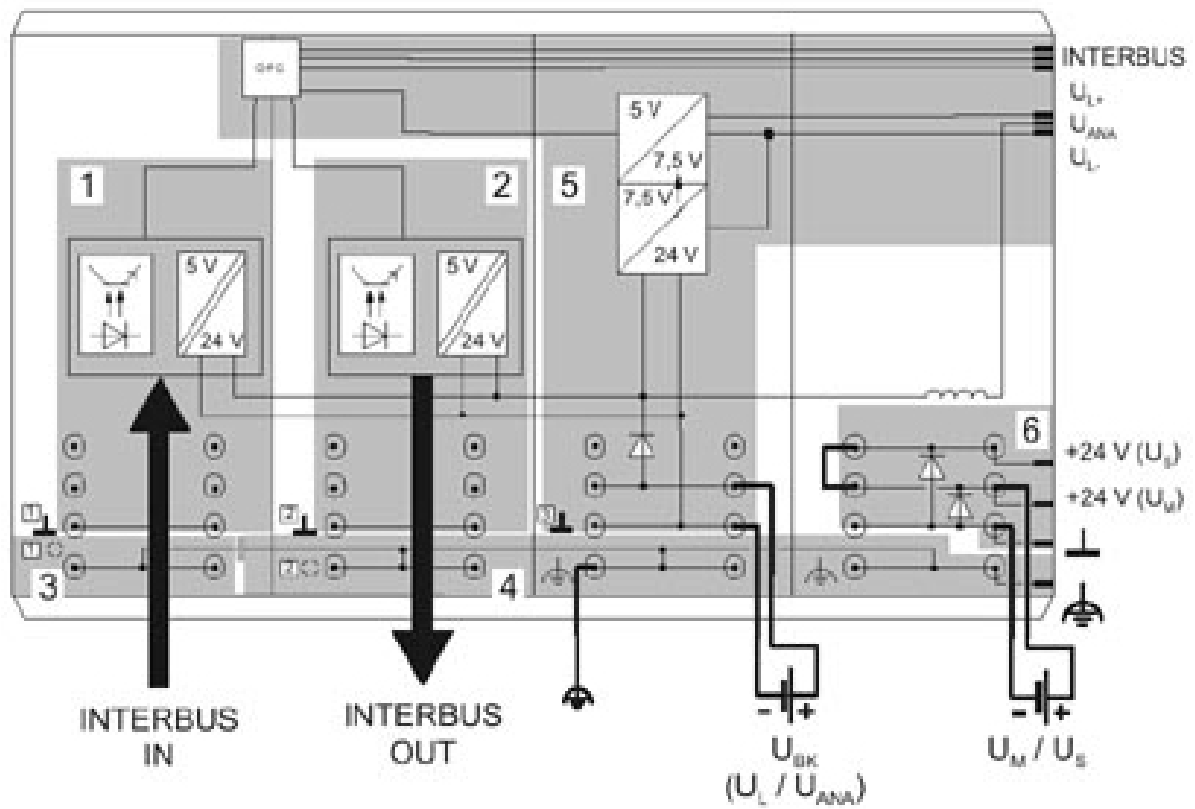
IBS IL 24 BK-T/U-PAC - Bus coupler

2861580

<https://www.phoenixcontact.com/us/products/2861580>



Block diagram



IBS IL 24 BK-T/U-PAC - Bus coupler



2861580

<https://www.phoenixcontact.com/us/products/2861580>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2861580>



EAC

Approval ID: TR TS_S_03508-21



DNV GL

Approval ID: TAA00001KV



BV

Approval ID: 20977/C0 BV

BSH

Approval ID: 658a



RINA

Approval ID: ELE121121XG

ABS

Approval ID: 22-2226444-PDA



cULus Recognized

Approval ID: E140324



LR

Approval ID: LR23398855TA



cULus Listed

Approval ID: E199827

IBS IL 24 BK-T/U-PAC - Bus coupler

2861580

<https://www.phoenixcontact.com/us/products/2861580>



Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27242608 |
|-------------|----------|

ETIM

| | |
|----------|----------|
| ETIM 9.0 | EC001604 |
|----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 32151600 |
|-------------|----------|

IBS IL 24 BK-T/U-PAC - Bus coupler



2861580

<https://www.phoenixcontact.com/us/products/2861580>

Environmental product compliance

EU RoHS

| | |
|-----------------------------------------|--------------|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 7(a), 7(c)-I |

China RoHS

| | |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environment friendly use period (EFUP) | EFUP-50 |
| | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

EU REACH SVHC

| | |
|-------------------------------------|--------------------------------------|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1) |
| SCIP | f063e663-09ff-4353-9f8d-0418b40ec074 |

Phoenix Contact 2025 © - all rights reserved

<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com